

## Color-Coded Periodic Table Activity

**Directions:** Be sure to follow all instructions carefully and completely! Use your textbook and any other resources to help you complete the periodic table.

1. Label the groups with 1-18 at the top of each column.
2. Label the periods with 1-7 at the left of each row.
3. Label the Representative Elements from 1A – 8A at the top of each column.
4. Darkly outline and label the *s*, *p*, *d* and *f* blocks (use whatever colors).
5. Place a \* in the boxes of elements 57 and 89.
6. Draw a “**G**” in the boxes of the elements that exist as a **gas** at room temperature.
7. Draw an “**L**” in the boxes of the elements that exist as a **liquid** at room temperature.
8. Draw a **HEAVY BLACK LINE** down the staircase that separates the metals from the nonmetals.
9. Use the following colors (or use your own color scheme) to identify the various sections of the periodic table.
  - a. **Alkali Metals = red**
  - b. **Alkaline Earth Metals = pink**
  - c. **Transition Metals = purple**
  - d. **Inner Transition Metals = brown**
  - e. **All other metals = orange**
  - f. **Metalloids = blue**
  - g. **Halogens = green**
  - h. **Noble Gases = yellow**
  - i. **All other nonmetals = leave white**
  - j. **Lanthanide Series = red dot in the lower right corner**
  - k. **Actinide Series = blue dot in the lower right corner**
- 10.7. Make a legend of your color key in the lower left corner of your periodic table.

## Questions

1. Which colors in your periodic table represents **ALL** the metals?  
\_\_\_\_\_
2. What is the name of the element in group 3, period 4? \_\_\_\_\_
3. What is the name of the 4<sup>th</sup> halogen? \_\_\_\_\_
4. How many elements are in the lanthanide series? \_\_\_\_\_
5. What is the name of group 2A? \_\_\_\_\_
6. What is the group number for the halogens? \_\_\_\_\_
7. How many transition metals are there in period 2? \_\_\_\_\_ How many in period 3? \_\_\_\_\_
8. How many nonmetals are there? \_\_\_\_\_
9. Is barium a metal, metalloid or nonmetal? How do you know? \_\_\_\_\_  
\_\_\_\_\_
10. What families are included in the “s” block? \_\_\_\_\_
11. Which block(s) represent the representative elements? \_\_\_\_\_ (label **REPRESENTATIVE ELEMENTS** on your periodic table).
12. Which block(s) represent the transition elements? \_\_\_\_\_ (label **TRANSITION ELEMENTS** on your periodic table).
13. Why were you asked to put asterisks (\*) next to lanthanum and actinium?  
\_\_\_\_\_
14. Copper, silver and gold are all excellent conductors of electricity. From this information, what can you conclude about elements that share the same column of the periodic table?  
\_\_\_\_\_  
\_\_\_\_\_
15. Pick any element from the periodic table. List all the information about this element based on your color-coded periodic table. **ELEMENT**: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# Periodic Table of the Elements

1 H																	1 H	2 He
3 Li	4 Be											5 B	6 C	7 N	8 O	9 F	10 Ne	
11 Na	12 Mg											13 Al	14 Si	15 P	16 S	17 Cl	18 Ar	
19 K	20 Ca	21 Sc	22 Ti	23 V	24 Cr	25 Mn	26 Fe	27 Co	28 Ni	29 Cu	30 Zn	31 Ga	32 Ge	33 As	34 Se	35 Br	36 Kr	
37 Rb	38 Sr	39 Y	40 Zr	41 Nb	42 Mo	43 Tc	44 Ru	45 Rh	46 Pd	47 Ag	48 Cd	49 In	50 Sn	51 Sb	52 Te	53 I	54 Xe	
55 Cs	56 Ba	57 La	72 Hf	73 Ta	74 W	75 Re	76 Os	77 Ir	78 Pt	79 Au	80 Hg	81 Tl	82 Pb	83 Bi	84 Po	85 At	86 Rn	
87 Fr	88 Ra	89 Ac	104 Rf	105 Db	106 Sg	107 Bh	108 Hs	109 Mt					114		116		118	

58 <b>Ce</b>	59 <b>Pr</b>	60 <b>Nd</b>	61 <b>Pm</b>	62 <b>Sm</b>	63 <b>Eu</b>	64 <b>Gd</b>	65 <b>Tb</b>	66 <b>Dy</b>	67 <b>Ho</b>	68 <b>Er</b>	69 <b>Tm</b>	70 <b>Yb</b>	71 <b>Lu</b>
90 <b>Th</b>	91 <b>Pa</b>	92 <b>U</b>	93 <b>Np</b>	94 <b>Pu</b>	95 <b>Am</b>	96 <b>Cm</b>	97 <b>Bk</b>	98 <b>Cf</b>	99 <b>Es</b>	100 <b>Fm</b>	101 <b>Md</b>	102 <b>No</b>	103 <b>Lr</b>